

ABSTRACT OF THE DISCLOSURE

An image analyzing unit analyzes an input image, and determines an embedding intensity level for an electronic watermark to be embedded in units of a pixel of the input image. The image analyzing unit then outputs the embedding intensity information to an electronic watermark pattern embedding unit and a displacement information pattern embedding unit, respectively. The electronic watermark pattern embedding unit embeds in the input image an electronic watermark pattern read from an electronic watermark pattern storage unit. At this time, the electronic watermark pattern is embedded based on the embedding intensity information. The displacement information pattern embedding unit embeds a displacement information pattern read from a displacement information pattern storage unit in the processed image having the electronic watermark pattern embedded therein. At this time, the displacement information pattern is embedded based on the embedding intensity information.